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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,873	08/02/2000	Rajesh R Shah	5038-55INTEL#3P222	8933

7590 02/19/2004

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EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/631,873

Applicant(s)

SHAH, RAJESH R

Examiner

Mohammad A Siddiqi

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-2,4-12, and 14-27 are presented for the examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1-2,4-12, and 14-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 1,11, and 21, the phrase "appearing" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-2,4-12, and 14-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Arai et al. (6,496,893) (hereinafter Arai).

7. As per claims 1, and 11, Arai discloses a method for a parent device to access a service of a child device (col 6, lines 1-12) in a driver stack (col 4, lines 4-12), the method comprising:

Creating (col 3, lines 30-31) a virtual device (col 3, lines 25-35),
binding (col 7, lines 15-16) the virtual device to the parent device (col 6, lines 1-12), and

inserting (col 11, lines 40-41) the virtual device in the driver stack (col 9, lines 24-31) below the child device (col 6, lines 1-12),

accessing the services of the child device by the parent device with a request (col 6, lines 1-12), the request appearing to come from the virtual device (col 9, lines 1-30).

8. As per claims 2 and 12, Arai discloses the driver stack is a dynamic driver stack (col 9, lines 17-31).

9. As per claims 4,14, 25, and 26, Arai discloses accessing the service of the child device includes incrementing a reference count of a number of users of the service of the child device (col 13, lines 27-57).

10. As per claims 5, and 15, Arai discloses binding the virtual device includes arranging (col 15, lines 25-44) the parent device to receive a query to remove the dynamic driver stack sent to the virtual device (col 15, lines 14-25).

11. As per claims 6, 16, 22, and 23, Arai disclose, receiving at the virtual device a query to remove the dynamic driver stack (col 3, lines 11-15), releasing the service of the child device, and passing the query to remove the dynamic driver stack to a next device in the dynamic driver stack (col 9, lines 1-5).

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12. As per claims 7 and 17, Arai discloses releasing the service of the child device includes releasing the service of the child device by the parent device (col 11, lines 61-67 and col 12, lines 1-5).

13. As per claims 8 and 18, Arai disclose releasing the service of the child device includes invoking a code within the virtual device that accesses the parent device (col 12, lines 5-40).

14. As per claims 9, 19 and 27, Arai disclose releasing the service of the child device includes decrementing a reference count of a number of users of the service of the child device (col 13, lines 36-43).

15. As per claims 10 and 20, Arai disclose accessing the service of the child device includes accessing a second service of a second child device above the virtual in the dynamic driver stack (col 1, lines 48-67 and col 2, lines 5-21).

16. As per claim 21, Arai discloses an apparatus supporting removal of a driver stack (col 15, lines 12-20), the apparatus comprising:

a computer (col 3, lines 1-5) including a hardware component requiring the driver stack (col 9, lines 16-31);

An operating system running the computer (col 1, lines 25-27);

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The driver stack loaded (col 9, lines 16-31) on to the operating system and supporting the hardware component (col 5, 5-20), the driver stack including at least a parent driver and a child driver (col 4, lines 1-2), the child driver providing a service accessed by the parent driver (col 4, lines 1-20),

A virtual driver (col 3, lines 10-15) bound to the parent driver and installed below the child driver in the driver stack (col 3, lines 56-67); and

A request from the parent driver to access the service provided by the child driver (col 6, lines 1-12), the request appearing to come from the virtual device (col 9, lines 1-30).

17. As per claim 24, Arai discloses the parent driver is adapted to insert (col 11, lines 40-41) the virtual driver (col 3, lines 10-15) into the stack before accessing the service provided by the child (col 3, lines 56-67).

Response to Arguments

18. Applicant's Remarks, filed 01/08/04, are moot in view of the new grounds of rejection necessitated by Applicants amendment.

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A Siddiqi whose telephone number is (703) 305-0353. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MAS

A handwritten signature in black ink, appearing to be 'JF' or similar, written in a cursive style.

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100